جامعة اليرموك
Yarmouk University
كلية تكنولوجيا المعلومات وعلوم الحاسوب
Faculty of Information Technology and
Computer Sciences

Document Code	Study Plan	Document Approval Date
AP02-PR04		

Department: Information Systems	**Program: Computer Information Systems**	**Official Stamp**
The study plan was approved by the decision of the Deans' Council no. ...... on		

About the Program
The Department of Information Systems (IS) formerly "The Department of Computer Information Systems" was established in the academic year 2002/2003 as part of the Faculty of Information Technology and Computer Sciences. The department offers a bachelor's degree in CIS which provides promising employment opportunities in business, industry and the area of Information Technology. In 2019, the department has reviewed the curriculum for the bachelor's degree and a new comprehensive and emergent curriculum has been approved. IS department offers a mater's program in Computer Information Systems, which provides advanced theoretical and practical skills in this discipline.

Vision and Mission	
Vision	**To achieve a leading and distinctive position among Information Systems (IS) departments of other local and regional universities.**
Mission	**Providing local and regional markets with competent and qualified graduates equipped and endorsed with the needed knowledge and necessary technical and soft skills in order to enable them to overcome variety of information systems-related challenges by empowering students with exceptional practical and theoretical courses. The IS department also works on providing positive, informative, and pioneer learning environment which helps to hone the character of our graduates and to contribute in shaping individuals' personalities to build information society. Yarmouk University's IS department envisions an abundance of world-class research that contributes in enhancing information systems research community and provides continuous support in building skillset for academic staff and students.**

Program Objectives	
1	**Obtain a successful professional career in industry, academia, or any related field where they meet or exceed expectations**
2	**Utilize and apply the knowledge acquired by the program such as the problem-solving skills, critical thinking skills, communications skills and technical computer skills including but not limited to web domains, cloud computing and data sciences to make informed, responsible, and risk-aware decisions in the workplace.**
3	**Employ professional and educational skills taught in the CIS program to make a positive impact on society.**

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Program Learning Outcomes PLOs	
PLO1	Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
PLO2	Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the Computer Information Systems.
PLO3	Communicate effectively in a variety of professional contexts.
PLO4	Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
PLO5	Function effectively as a member or leader of a team engaged in activities appropriate to the Computer Information Systems.
PLO6	Support the delivery, use, and management of information systems within an information systems environment.
PLO7	Design, implement, and use of data management, analysis and retrieval solutions.

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Credit hours to obtain a degree in Information Technology and Computer Sciences in a specialization of Computer Information Systems			
	Credit Hours		
	Compulsory	**Elective**	**Total**
University Requirements	12	15	**27**
Faculty Requirements	22	0	**22**
Department Requirements	67	18	**85**
Total	**101**	**33**	**134**

First: University Compulsory Courses (12) Credit Hours						
Course Code	**Course No.**	**Course Name**	**Number of Credit Hours**			**Pre-requisite**
			Theoretical	**Practical**	**Total**	
AL	**101**	Arabic Language 1	3	0	3	-
EL	**101**	English Language Skills	3	0	3	-
PS	**102**	Civil Education	3	0	3	-
MILT	**100**	Military Sciences	3	0	3	-
EL	**099**	English Language Skills-Remedial	Remedial	0	0	-
AL	**099**	Arabic Language - Remedial	Remedial	0	0	-
COMP	**099**	Computer Skills - Remedial	Remedial	0	0	-

Second: University Elective Courses (15) Credit Hours						
Course Code	**Course No.**	**Course Name**	**Number of Credit Hours**			**Pre-requisite**
			Theoretical	**Practical**	**Total**	
Hum	101	Basic of Mass Communication	3	0	3	-
Hum	102	Citizenship and Allegiance	3	0	3	-
Hum	103	Islamic: Intellect & Civilization	3	0	3	-

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Hum	104	Art and Behaviours	3	0	3	-
Hum	105	Jordan Contribution to Human Civilization	3	0	3	-
Hum	106	Introduction to Human Cultures Studies	3	0	3	-
Hum	107	Human Rights	3	0	3	-
Hum	108	Thinking Skills	3	0	3	-
Sci	101	The Environment and Public Health	3	0	3	-
Sci	102	Information Technology and Society	3	0	3	-
Sci	103	Physical Education for ALL	3	0	3	-
Sci	104	Effective Communication Skills	3	0	3	-
Sci	105	Renewable Energy	3	0	3	-
Sci	106	Management and Society Development	3	0	3	-
Sci	107	Scientific Research	3	0	3	-

Third: Faculty Compulsory Courses (22) Credit Hours

Course Code	Course No.	Course Name	Number of Credit Hours			Pre-requisite
			Theoretical	Practical	Total	
CS	111	Programming in a Selected Language	3	0	3	-
CS	111L	Programming in a Selected Language Lab	0	3	1	CS 111
MATH	101	Calculus (1)	3	0	3	-
CIS	101	Introduction to Information Systems	3	0	3	-
CIS	260	Database systems	3	0	3	CS 210 and CIS 101
STAT	111	Introduction to Probability (1)	3	0	3	-
BIT	106	Communication Skills for Information Technology	3	0	3	-
BIT	221	Legal Issues in Information Technology	3	0	3	BIT 106 and CIS 101

Fourth: Department Compulsory Courses (67) Credit Hours

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Course Code	Course No.	Course Name	Number of Credit Hours			Pre-requisite
			Theoretical	Practical	Total	
CIS	214	Visual Programming	3	0	3	CIS 101 & CS 210
CIS	240	Introduction to Software Engineering	3	0	3	CIS 101 & CS 210
CIS	260L	Database Systems Lab	0	3	1	CIS 260
CIS	265	Database Management System	3	0	3	CIS 260
CIS	340	Object Oriented Analysis and Design	3	0	3	CIS 240
CIS	340L	Object Oriented Analysis and Design Lab	0	3	1	CIS 340
CIS	342	System Analysis and Design	3	0	3	CIS 240 & CIS 260
CIS	360	Developing Database Applications	3	0	3	CIS 260
CIS	367	Data Warehousing	3	0	3	CIS 260
CIS	382	Cloud Computing	3	0	3	CIS 260 & CS 332
CIS	440	Software Testing and Validation	3	0	3	CIS 340L
CIS	464	Information Retrieval Systems	3	0	3	CIS 260
CIS	467A	Data Mining	3	0	3	CIS 260
CIS	467L	Information retrieval and Mining Lab	0	3	1	CIS 467A or together

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CIS	468	Big Data Management	3	0	3	CIS 467A & CIS360
CIS	499	Graduation Project	3	0	3	Complete 98 CHs
CS	142	Discrete Structures	3	0	3	MATH 101
CS	210	Object Oriented Programming	3	0	3	CS 111
CS	210L	Object Oriented Programming (Lab)	0	3	1	CS 210 & CIS 111L
CS	250	Data Structures	3	0	3	CS 210
CS	332	Data Communication and Networks	3	0	3	CYS 230
CS	351	Analysis and Design of Algorithms	3	0	3	CS 250 & CS 142
CYS	230	Cyber Security Principles	3	0	3	CS 111
CYS	334	Network security	3	0	3	CS 332
BIT	381	Web Application Development (1)	3	0	3	CIS 260

Fifth: Department Elective Courses (9) Credit Hours						
Course Code	**Course No.**	**Course Name**	**Number of Credit Hours**			**Pre-requisite**
			Theoretical	**Practical**	**Total**	
CIS	227	Human Computer Interaction	3	0	3	CS 210L
CIS	241	Software Documentation	3	0	3	CIS 240
CIS	256	File Structures	3	0	3	CS 250

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CIS	370	Intelligent Systems and Internet of Things	3	0	3	CS 210 & CS 332
CIS	380	Information System Applications	3	0	3	CS 360
CIS	441	Software Quality Assurance	3	0	3	CIS 440
CIS	472	Applied Data Mining	3	0	3	CIS 467A
CIS	480	Distributed Systems Applications	3	0	3	CS 332 & BIT 381
CIS	492	Special Topics	3	0	3	CIS 360
CIS	498	Practical Training	3	3	3	Complete 98 CHs successfully

Sixth: Department Elective Courses (6) Credit Hours– Faculty of IT

Course Code	Course No.	Course Name	Number of Credit Hours			Pre-requisite
			Theoretical	**Practical**	**Total**	
CS	281	Multimedia Systems	3	0	3	CIS 101 & CS 210
CS	376	Artificial Intelligence	3	0	3	CS 351
BIT	222	Entrepreneurship in IT	3	0	3	CIS 101
BIT	481	Web Application Development (2)	3	0	3	BIT 381

Seventh: Department Elective Courses (3) Credit Hours – Faculty of Science

Course Code	Course No.	Course Name	Number of Credit Hours			Pre-requisite
			Theoretical	**Practical**	**Total**	
MATH	241	Linear Algebra (1)	3	0	3	MATH 101

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MATH	322	Numerical Analysis (1) (for IT Students)	3	0	3	CS 142
STAT	101	Introduction to Statistics (1)	3	0	3	---

Mapping Matrix between department mandatory courses and Student outcomes							
	1	**2**	**3**	**4**	**5**	**6**	**7**
CIS 214		*					
CIS 240	*	*	*	*		*	
CIS 260		*			*	*	*
CIS 260L		*					*
CIS 265	*			*		*	*
CIS 340	*	*					
CIS 340L	*	*					
CIS 342	*	*					
CIS 360		*				*	*
CIS 367							*
CIS 411		*	*			*	*
CIS 431	*	*	*			*	
CIS 464						*	*
CIS 467A							*
CIS 467L	*	*					*
CIS 499	*	*	*				
CIS 382	*				*	*	
CIS440	*	*				*	
CIS 468	*					*	*

Mapping Matrix between department-elective courses and learning outcomes							
	1	**2**	**3**	**4**	**5**	**6**	**7**

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CIS 227		*		*		*	
CIS 241	*	*			*	*	
CIS 256	*	*				*	*
CIS 370	*	*		*	*	*	*
CIS 380	*			*		*	
CIS 441	*					*	*
CIS 472	*						*
CIS 480	*	*		*	*	*	
CIS 492	*	*	*	*	*	*	
CIS 498	*	*	*	*	*	*	